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## (54) NONVOLATILE MEMORY

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a nonvolatile memory, big in a memorizing capacity and low in a bit cost, with a low cost.

SOLUTION: The nonvolatile memory is provided with a plurality of electrode layers. A plurality of electrodes 121, 122, 123, 124..., are arranged in parallel with spaces in the substantially same plane on respective electrode layers. The electrodes 121, 123..., arranged on the odd number electrode layers are substantially orthogonal to the electrodes 122, 124..., arranged on the even number electrode layers, while metallic oxides 131, 132..., whose values of electric resistance are changed by an electric means are provided between the electrodes of continuous number electrode layers. Excluding the electrodes on the lowermost stage and the uppermost stage, both of the electrodes 121, 123..., on the odd number electrode layers and the electrodes 122, 124..., on the even number electrode lavers are connected to the metallic oxides 131, 132..., provided on both surfaces of these electrodes.

